



Public Notice

Applicant:
Cornell University

Date:
Published: Feb. 26, 2001
Expires: Mar. 28, 2001

**U.S. Army Corps
of Engineers**

In Reply Refer To:

Buffalo District CELRB-CO-R RE: 2001-00543(0) Section: NY 404

**Application for Permit under Authority of
Section 404 of the Clean Water Act (33 U.S.C. 1344).**

Cornell University, Laboratory of Ornithology, 102 Humphreys Service Building, Ithaca, New York 14853, has applied for a Department of the Army permit to fill 1.5 acres of wetland for the expansion of an existing research and visitor center. The project is located at 159 Sapsucker Woods Road, in the Village of Lansing, Tompkins County, New York. The wetlands are adjacent to tributaries of Cayuga Lake.

Approximately 13.7 acres of wetlands were delineated within the 43-acre project area. The wetlands consist of 8.7 acres of forested wetland (PFO1E), 0.7 acre of scrub shrub (PSS1F), and 0.5 acre of wetland swales. There are two areas of open water habitat within the project area. The first area is a 3.4-acre existing farm pond, and the second section is a portion of a large pond (see Sheet No. 3 of 18).

Cornell Lab of Ornithology has proposed to construct an 83,000 square foot facility immediately north of the existing facility. The total amount of wetlands impacted by the expansion project will be approximately 1.5 acres. Specifically, the project as proposed will impact Wetlands A, B, C, D, and E as depicted on Sheet No. 5 of 18.

In order to mitigate for the proposed impacts, Cornell Lab of Ornithology has proposed to create, enhance and preserve, in perpetuity, a total of 2.9 acres of wetland. Approximately 1.6 acres of new wetland will be created on the property as per Sheet Nos. 10 and 11 of 18. The created mitigation area will provide scrub shrub, wet meadow, emergent and open water habitat. In addition, Cornell proposes to enhance the isolated farm pond to provide 1.2 acres of deep marsh, wet meadow and scrub shrub wetlands. This plan was designed to enhance breeding bird and other wildlife habitat and to increase plant species diversity within the sanctuary.

The purpose of the proposed expansion is to provide a two-story visitor and research center that overlooks the 220-acre Sapsucker Woods Bird Sanctuary.

Location and details of the above described work are shown on the attached maps and drawings.

Questions pertaining to the work described in this notice should be directed to Sandra L. Doran, who can be contacted by calling (315) 255-8090, or by e-mail at: sandra.l.doran@usace.army.mil

The following authorization(s) may be required for this project:

Water Quality Certification (or waiver thereof) from the New York State Department of Environmental Conservation.

There are no registered historic properties or properties listed as being eligible for inclusion in the National Register of Historic Places that will be affected by this project.

In addition, available evidence indicates that the proposed work will not affect a species proposed or designated by the U.S. Department of the Interior as threatened or endangered, nor will it affect the critical habitat of any such species.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice.

Comments should be sent to the U. S. Army Corps of Engineers, 7413 County House Road, Auburn, New York 13021-8964, and should be marked to the attention of Sandra L. Doran, or by e-mail at: sandra.l.doran@usace.army.mil. A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing might be held.

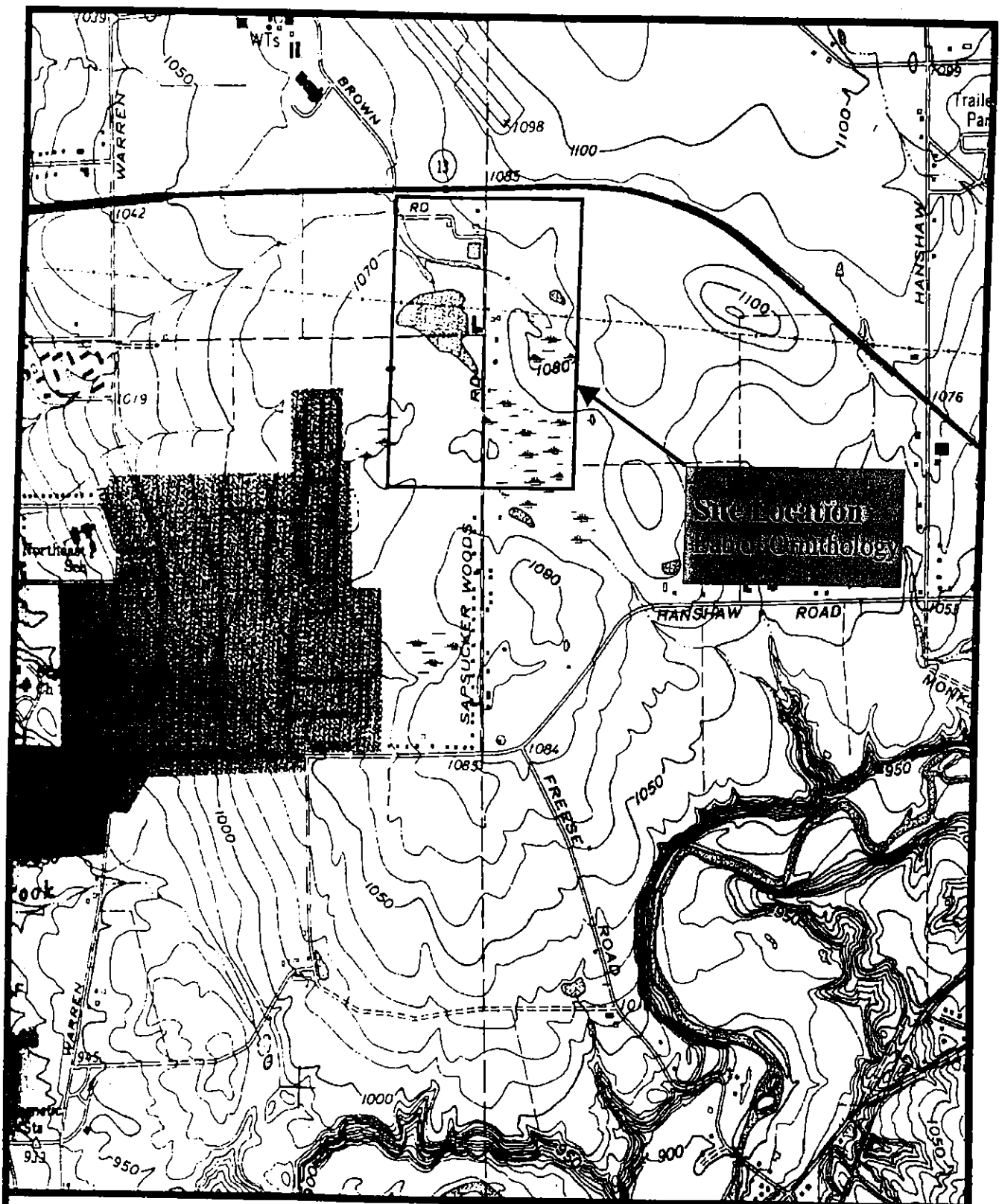
The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the

preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

for 
Paul G. Leuchner
Chief, Regulatory Branch

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.



Cornell University - Lab of Ornithology

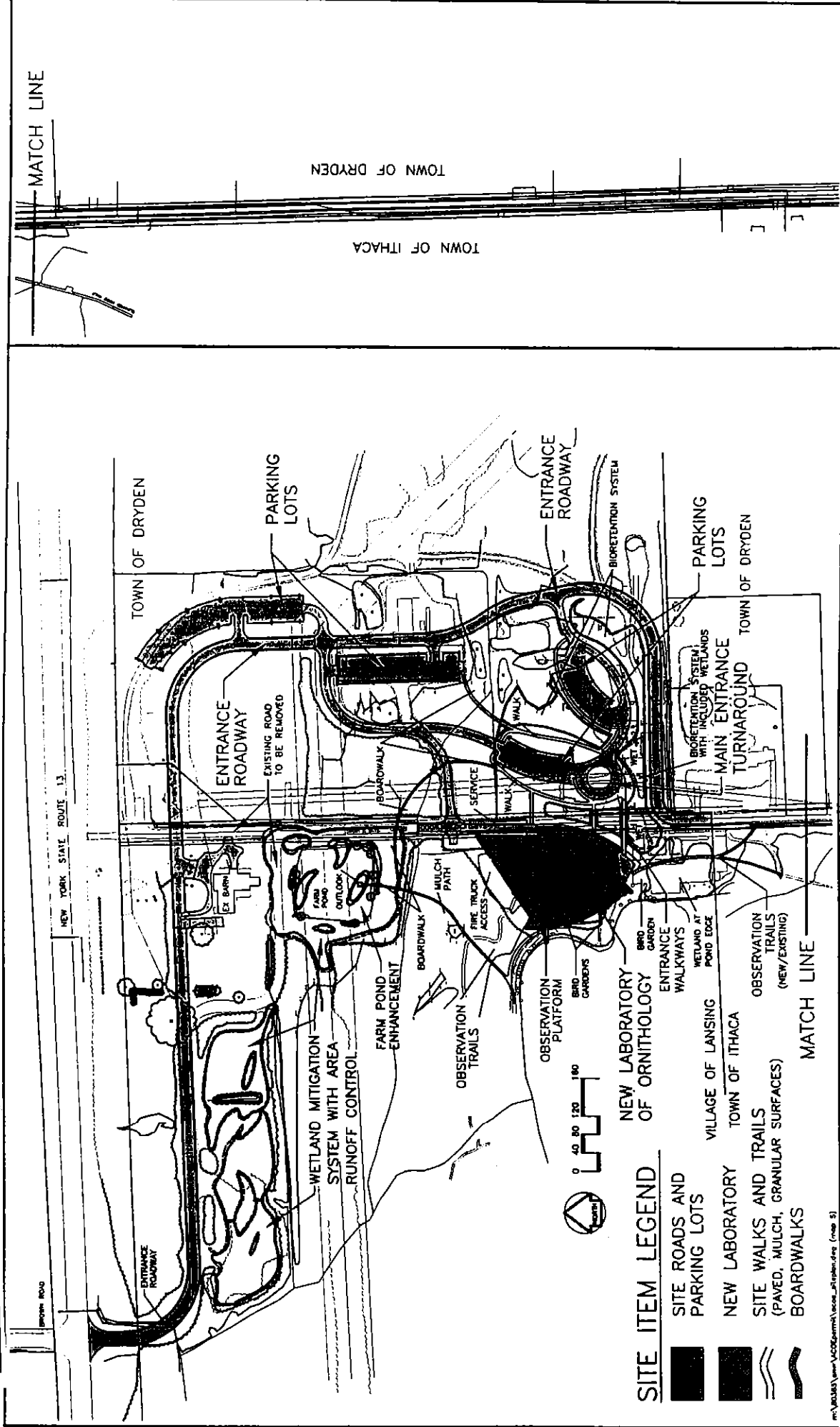
Figure 2. USGS Topography, Tompkins County, N. Y.
 Village of Lansing, Village of Cayuga Heights, and Town of Ithaca
 Source: USGS 7.5 Minute Series Topographic Quadrangle - Ithaca East

IEDC
 International Engineering & Development Corporation



CORNELL UNIVERSITY
 D/A Processing No. 2001-00543(0)
 Tompkins County, New York Quad: ITHACA
 EAST
 Sheet 1 of 18

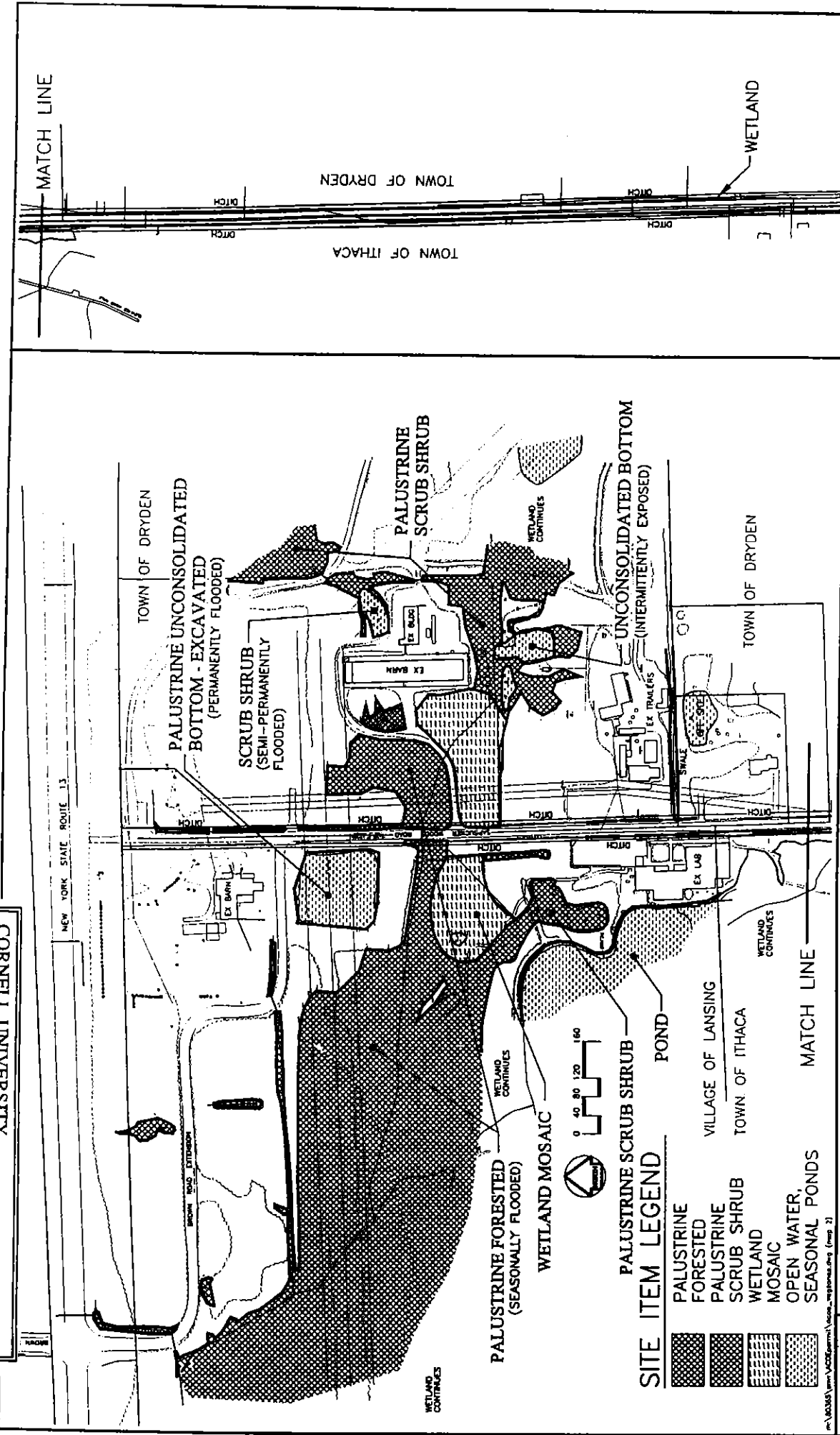
CORNELL UNIVERSITY
 D/A Processing No. 2001-00543(0)
 Tompkins County, New York Quad: ITHACA
 EAST
 Sheet 2 of 18



- SITE ITEM LEGEND**
- SITE ROADS AND PARKING LOTS
 - NEW LABORATORY
 - SITE WALKS AND TRAILS (PAVED, MULCH, GRANULAR SURFACES)
 - BOARDWALKS

<p>10 JAN 01 803534</p>	<p>SITE PLAN SOURCE: PLANS BY THE MILLER GROUP AND CHILD ASSOCIATES BASE MAP SOURCE: SITE SURVEY BY T.J. MILLER PC</p>	<p>IEDC ARLINGTON, VIRGINIA</p>	<p>Stearns & Wheeler, LLC ENVIRONMENTAL ENGINEERS & SCIENTISTS ONE BROADWAY, SUITE 1200 OAKLAND, NEW YORK 14653</p>	<p>WETLAND PERMIT APPLICATION CORNELL LABORATORY OF ORNITHOLOGY 159 SIPSUCKER WOODS ROAD, ITHACA, NEW YORK (VILLAGE OF LANSING, TOWN OF DRYDEN) PROPOSED SITE PLAN S</p>
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CORNELL UNIVERSITY
 D/A Processing No. 2001-00543(0)
 Tompkins County, New York Quad: ITHACA
 EAST
 Sheet 3 of 18



SITE ITEM LEGEND

- PALUSTRINE FORESTED (SEASONALLY FLOODED)
- PALUSTRINE SCRUB SHRUB
- WETLAND MOSAIC
- OPEN WATER, SEASONAL PONDS
- PALUSTRINE FORESTED
- PALUSTRINE SCRUB SHRUB
- WETLAND MOSAIC
- OPEN WATER, SEASONAL PONDS

IEDC
 ITHACA, NEW YORK

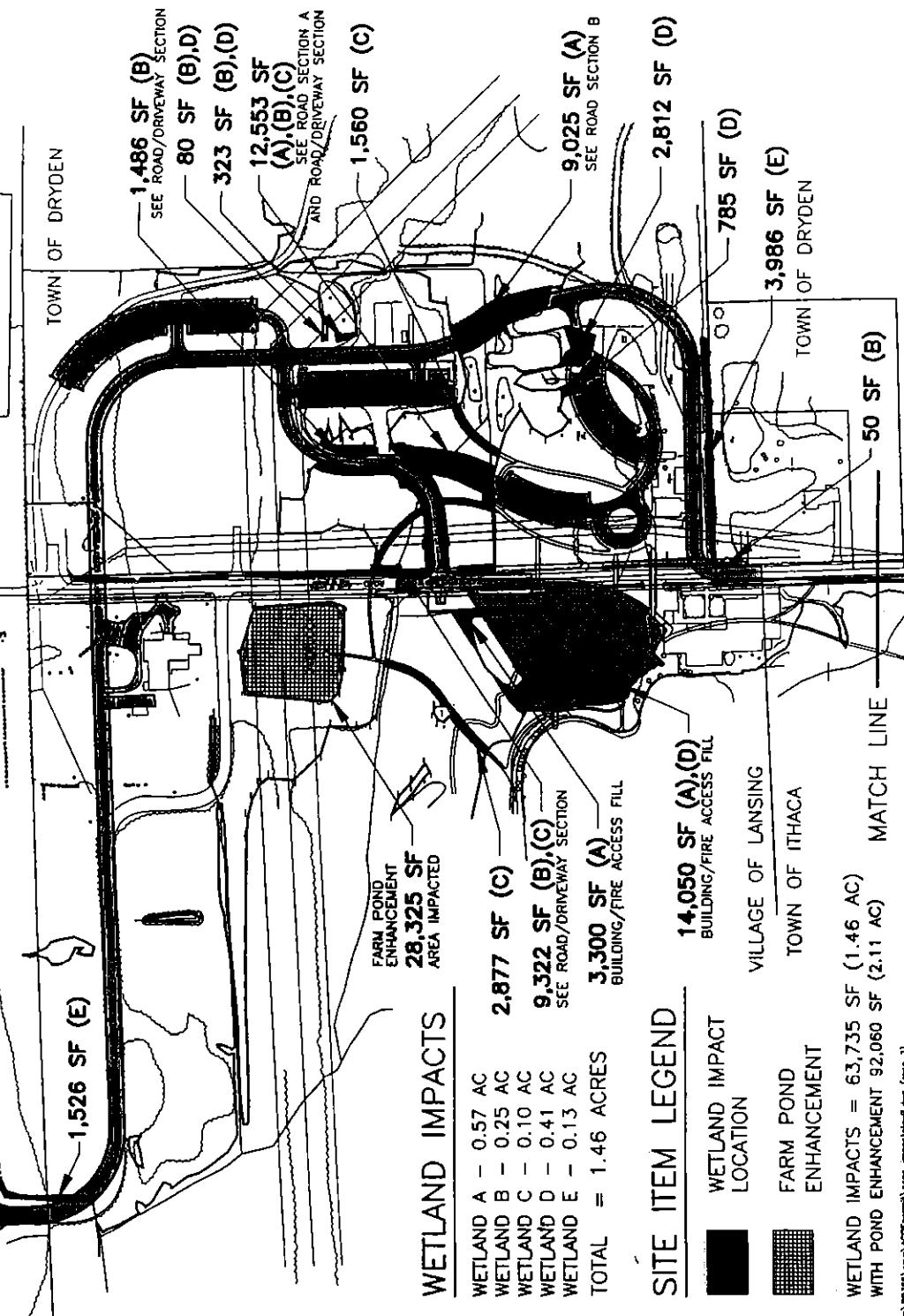
Stearns & Wheeler, LLC
 ENVIRONMENTAL ENGINEERS & SCIENTISTS
 ONE HUNTERTON PARK DRIVE
 CROTONA, NEW YORK 10535

Ecologic
 CROTONA, NEW YORK

WETLAND PERMIT APPLICATION
 CORNELL UNIVERSITY OF ORNITHOLOGY
 159 SIPSUCKER WOODS ROAD, ITHACA, NEW YORK
 (VILLAGE OF LANSING, TOWN OF DRYDEN)

WETLAND COVER TYPES

CORNELL UNIVERSITY
D/A Processing No. 2001-00543(0)



MATCH LINE

NOTE: NEW WATER AND SEWER UTILITY LINES SHALL BE INSTALLED IN ROAD PAVEMENT AND SHOULDER AREA TO CONNECTION POINTS TO EXISTING SYSTEMS LOCATED SOUTH OF THE MAIN SITE AREA

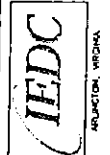
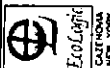
NO DISTURBANCE OF EXISTING WETLANDS BORDERING ROADWAY EDGES IS PROPOSED BEYOND POTENTIAL TEMPORARY DISTURBANCE OF EXISTING ROAD SIDE DRAINAGE DITCH

TOWN OF DRYDEN

ROAD PAVEMENT
IS PROPOSED TO
USED AS WORK
AND MATERIAL
STAGING AND
STORAGE AREA

TOWN OF ITHACA

Steamis & Wheeler, LLC
ENVIRONMENTAL ENGINEERS & SCIENTISTS
ONE REDUCTION PARK DRIVE
CALIFORNIA, NEW YORK 13035



PLANS BY THE HILLIER GROUP AND CHILD ASSOCIATES
SITE SURVEY BY T.J. MILLER PC

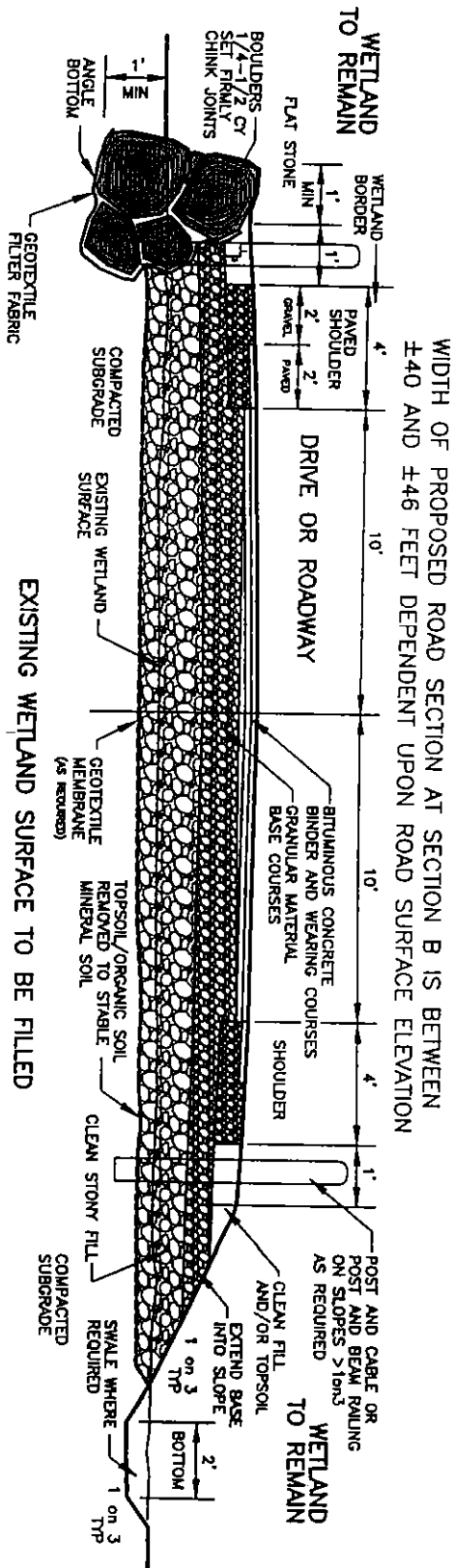
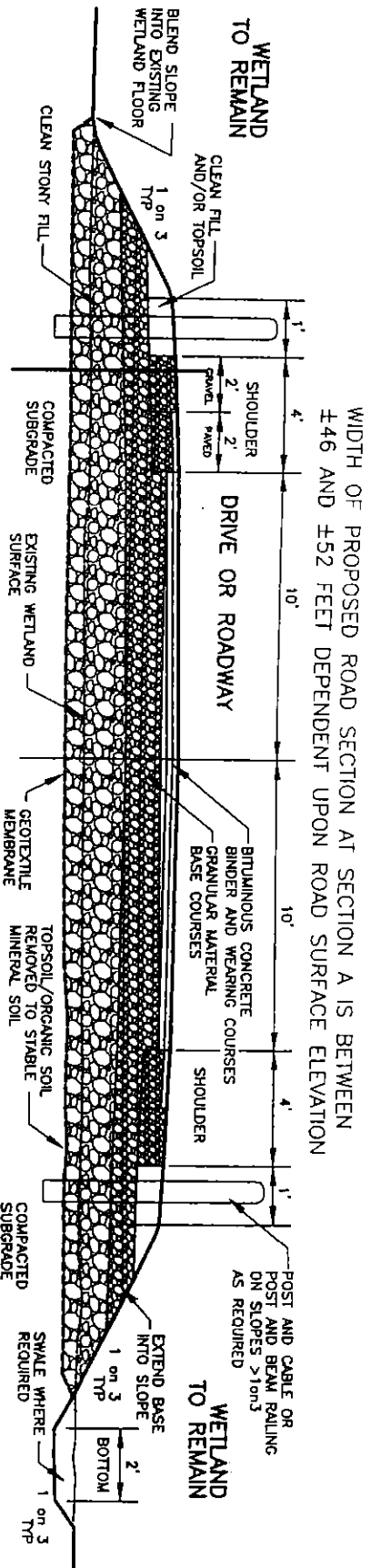
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10 JAN 01
10 07J 01
0300Z VLA

WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SIPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)
WETLAND IMPACT AREA

3

Table 1. TABLE OF WETLAND IMPACTS

I. EXISTING WETLANDS WITHIN PROJECT AREA								
Wetland	Sq. Feet	Roadside Ditches	PFO	PSS	PEM	POW (PUBHx)	UPLAND	SUM
Existing Wetlands within the Project Area		0.50	8.70	0.70	0.00	3.42		13.32
Pond Fringe Included in Project Area						0.38		0.38
Total Wetlands within Project Area								13.70
Upland Portion of Site within Project Area							29.30	29.30
Total Project Site		0.50	8.70	0.70	0.00	3.80	29.30	43.00
II. IMPACTED WETLANDS								
Wetland	Sq. Feet	Acres	PFO	PSS	PEM	POW	UPLAND	SUM
Wetland A (forested and mosaic)	24878	0.00	0.57					0.57
Wetland B (road edge)	10858	0.25						0.25
Wetland C (walking paths)	4437	0.00	0.10					0.10
Wetland D (scrub shrub)	18050			0.41				0.41
Wetland E (roadside ditches)	5512	0.13						0.13
Total Wetland Cover Types	63735	0.38	0.67	0.41	0.00	0.00	0.00	1.46
III. MITIGATION WETLANDS								
Wetland	Sq. Feet	Acres	PFO	PSS	PEM	POW	UPLAND	SUM
Wetland Mitigation areas								
Brown Road Extension								
Wetland A Open Water (deep marsh)	1630	0.04				0.04		0.04
Wetland B Emergent Marsh (marsh 2)	10687	0.25			0.25			0.25
Wetland C Wet Meadow (marsh 1)	26534	0.61			0.61			0.61
Wetland D Scrub-shrub Habitat**	33193	0.76		0.76				0.76
Pond Enhancement Area								
Wetland E Open Water (deep marsh)*	1339	0.03				0.03		0.03
Wetland F Emergent Marsh (marsh 2)	6185	0.14						
Wetland G Wet Meadow (marsh 1)	19287	0.44			0.44			0.44
Wetland H Scrub-Shrub Habitat**	29031	0.67		0.67				0.67
Wetland Adjacent Areas								
Brown Road Extension								
I. Upland Hummocks	3781	0.09						
J. Upland Buffer***	26630	0.61		0.61			0.09	0.09
								0.61
Pond Enhancement Area								
K. Upland Hummocks	4626	0.11						
L. Upland Buffer***	18805	0.43		0.43			0.11	0.11
								0.43
Created Wetlands for Stormwater								
Created wetlands by Building	15517							
Mitigation stormwater	6541	0.15		0.15				0.15
Bioretention Areas	34441	0.79	0.79					0.79
Total Created Cover Types	238226	5.11	0.79	2.62	1.30	0.07	0.19	4.97
Change in Cover Types (wetlands)			0.12	2.21	1.30	0.07	0.19	3.51
Total Conservation Area to be Preserved in Perpetuity =								2.93



NEW ROAD AND DRIVEWAY SECTION B

WETLAND CROSSING WHERE EXISTING DRIVEWAY IS NOT PRESENT

NOT TO SCALE

CORNELL UNIVERSITY
D/A Processing No. 2001-00543(0)
Tompkins County, New York Quad: ITHACA
EAST
Sheet 6 of 18

10 JAN 01 80357A
1 FEB 01 80357A
ONE REMAINING PAGE 5005
CORNELL UNIVERSITY
ITHACA, NEW YORK 14853

WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SAPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSEING, TOWN OF DRYDEN)

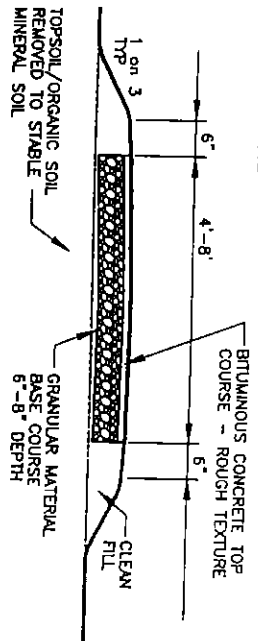
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4

NOT FOR CONSTRUCTION

WETLAND

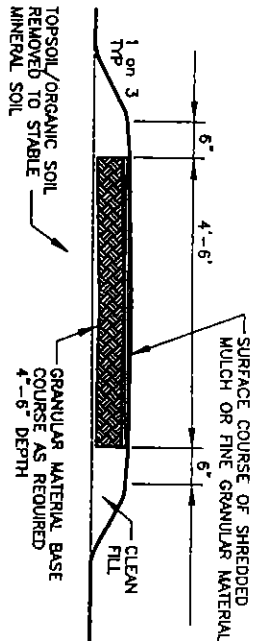
STONE WALL

DETAIL AT WETLAND POOL



WETLAND

WETLAND TRAIL SURFACE



PAVED PATH SECTION

NOT TO SCALE

NOT TO SCALE

WETLAND TO REMAIN

DRIVE OR ROADWAY

BITUMINOUS CONCRETE BINDER AND WEARING COURSES GRANULAR MATERIAL BASE COURSES

SHOULDER

WETLAND TO REMAIN

BLEND SLOPE INTO EXISTING WETLAND FLOOR

CLEAN STONY FILL

EXISTING STEEP SLOPE

COMPACTED SUBGRADE

EXISTING ROAD OR SURFACE

EXISTING DRIVEWAY

CLEAN STONY FILL

SWALE WHERE REQUIRED

1 on 3 BOTTOM

WETLAND TO REMAIN

FLAT STONE

PAVED SHOULDER

OPTIONAL DETAIL MAY BE USED TO REDUCE WETLAND IMPACTS IN SENSITIVE AREAS

STONE WALL

EXISTING DRIVEWAY

EXISTING DRIVEWAY

EXISTING DRIVEWAY

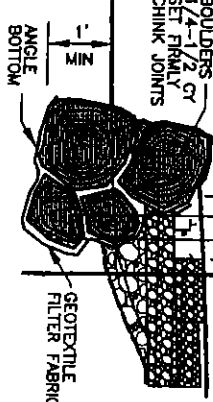
CLEAN STONY FILL

SWALE WHERE REQUIRED

1 on 3 BOTTOM

NEW ROAD AND DRIVEWAY SECTION

NOT TO SCALE



OPTIONAL DETAIL MAY BE USED TO REDUCE WETLAND IMPACTS IN SENSITIVE AREAS

CORNELL UNIVERSITY

D/A Processing No. 2001-00543(0)

Tompkins County, New York Quad: ITHACA

Sheet 7 of 18

C

Ecologic

Seatts & White, LLC
ENVIRONMENTAL ENGINEERS & SCIENTISTS
ONE REMINGTON PARK DRIVE
CATSKILL, NEW YORK 12035

WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SAPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)

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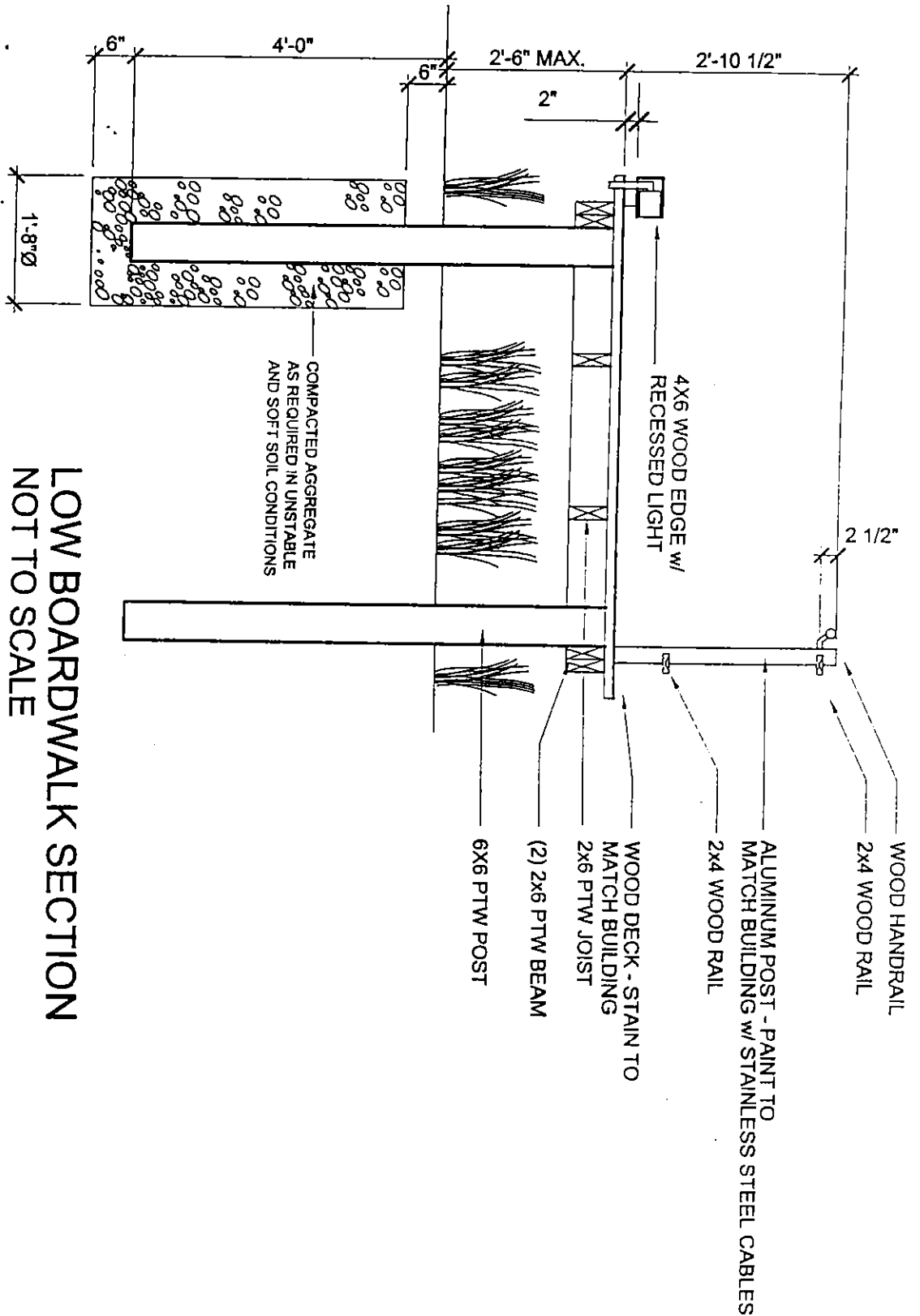
CATSKILL NEW YORK

1 FEB 01 803557A

10 JAN 01

1

NOT FOR CONSTRUCTION



LOW BOARDWALK SECTION
NOT TO SCALE
DETAIL PROVIDED BY CHILD ASSOCIATES

CORNELL UNIVERSITY
D/A Processing No. 2001-00543(0)
Tompkins County, New York Quad: ITHACA
EAST
Sheet 8 of 18



Scents & Whetzel, LLC
ENVIRONMENTAL ENGINEERS & SCIENTISTS
ONE TILMONTON PARK DRIVE
CATENOA, NEW YORK 13035

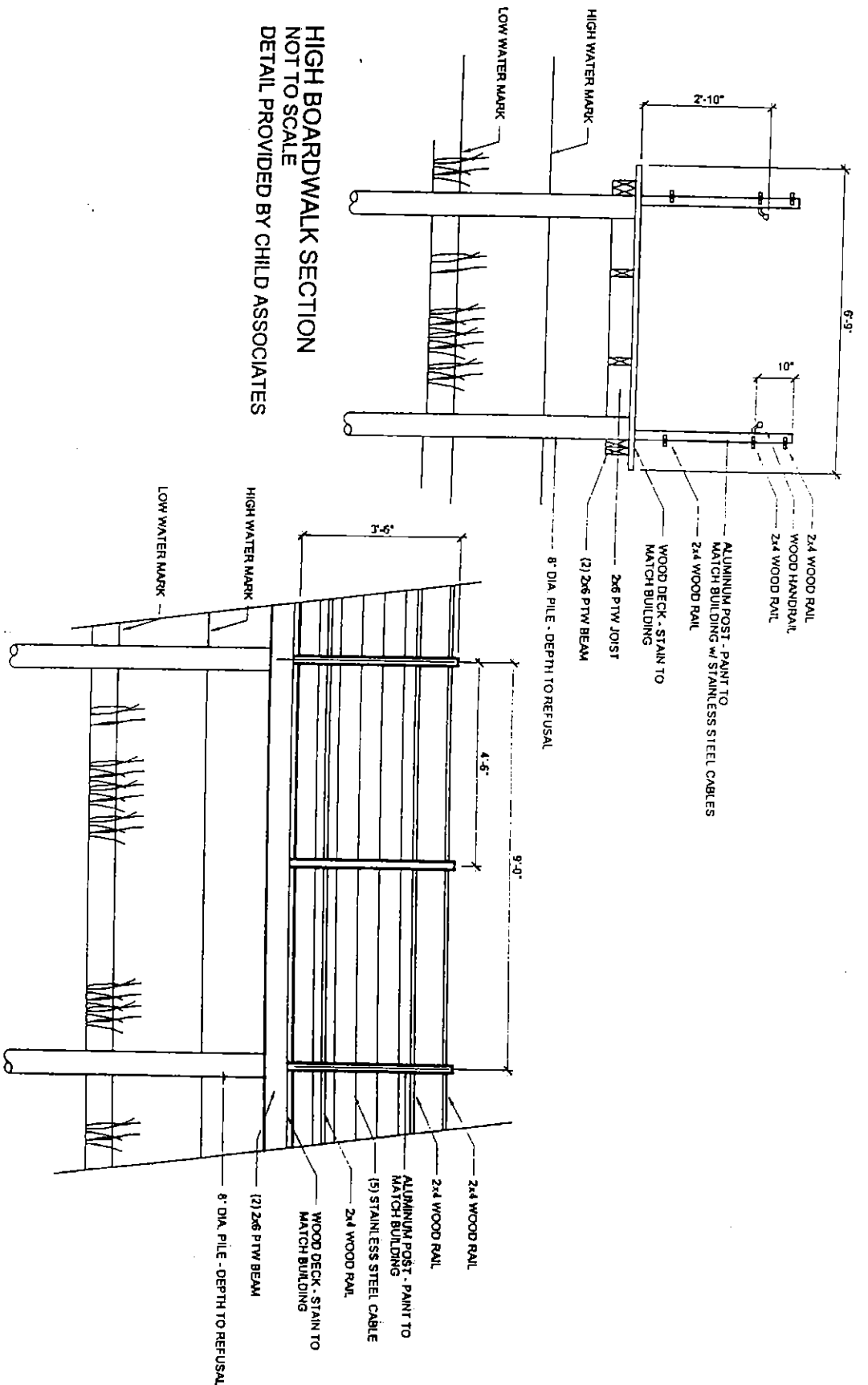
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WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SAPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)

SD/
2

NOT FOR CONSTRUCTION

HIGH BOARDWALK SECTION NOT TO SCALE DETAIL PROVIDED BY CHILD ASSOCIATES



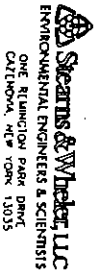
HIGH BOARDWALK ELEVATION NOT TO SCALE DETAIL PROVIDED BY CHILD ASSOCIATES

CORNELL UNIVERSITY
D/A Processing No. 2001-00543(0)
Tompkins County, New York Quad: TTHACA
EAST
Sheet 9 of 18



AMUNOON, WACANA

CALIFORNIA
NEW YORK



ONE RUMFORD PARK DRIVE
CALIFORNIA, NEW YORK 12035

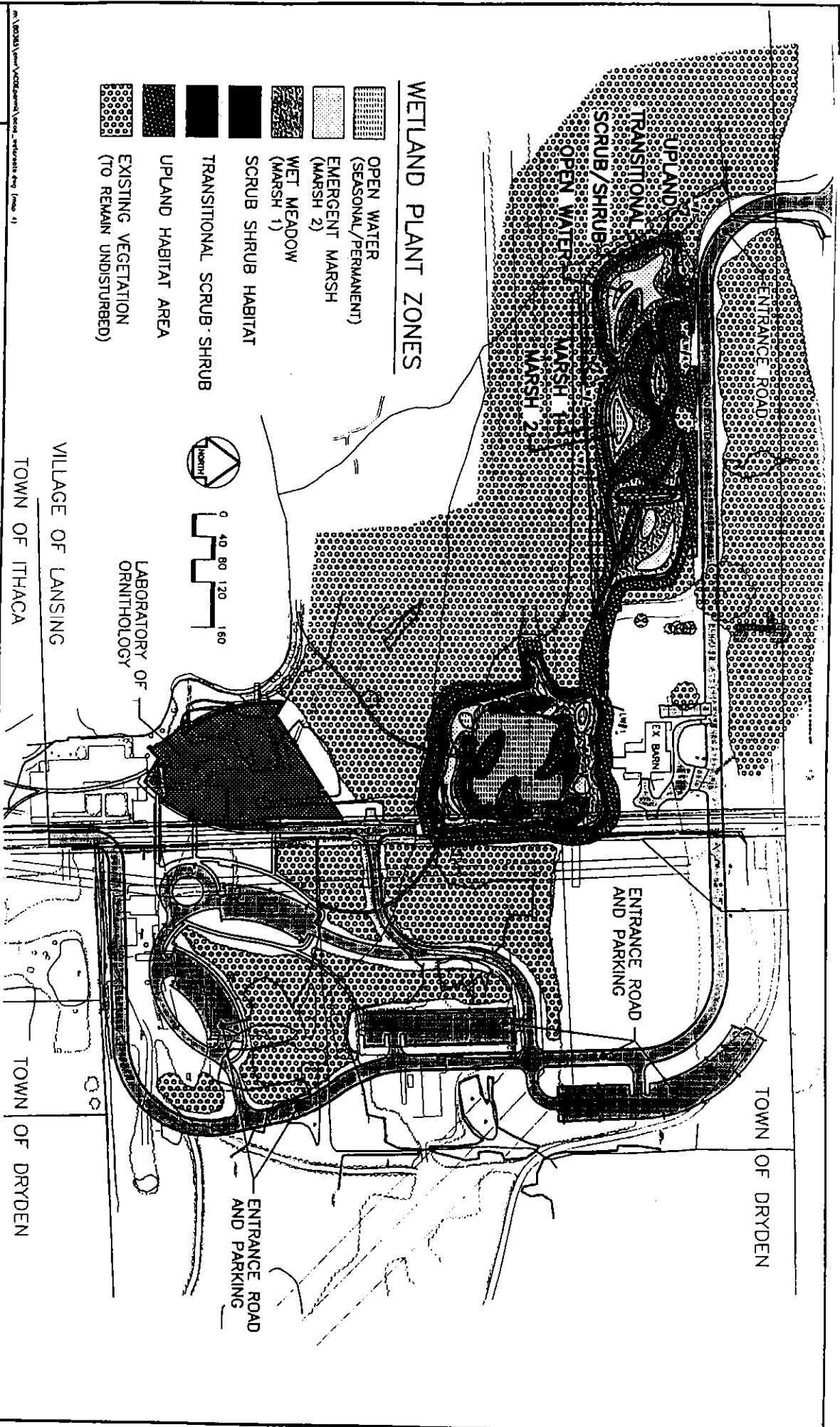
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WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SAPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANISING, TOWN OF DRYDEN)

TYPICAL SITE DETAILS

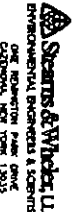
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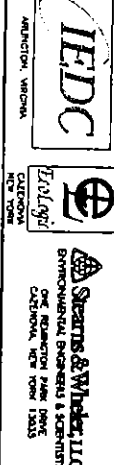
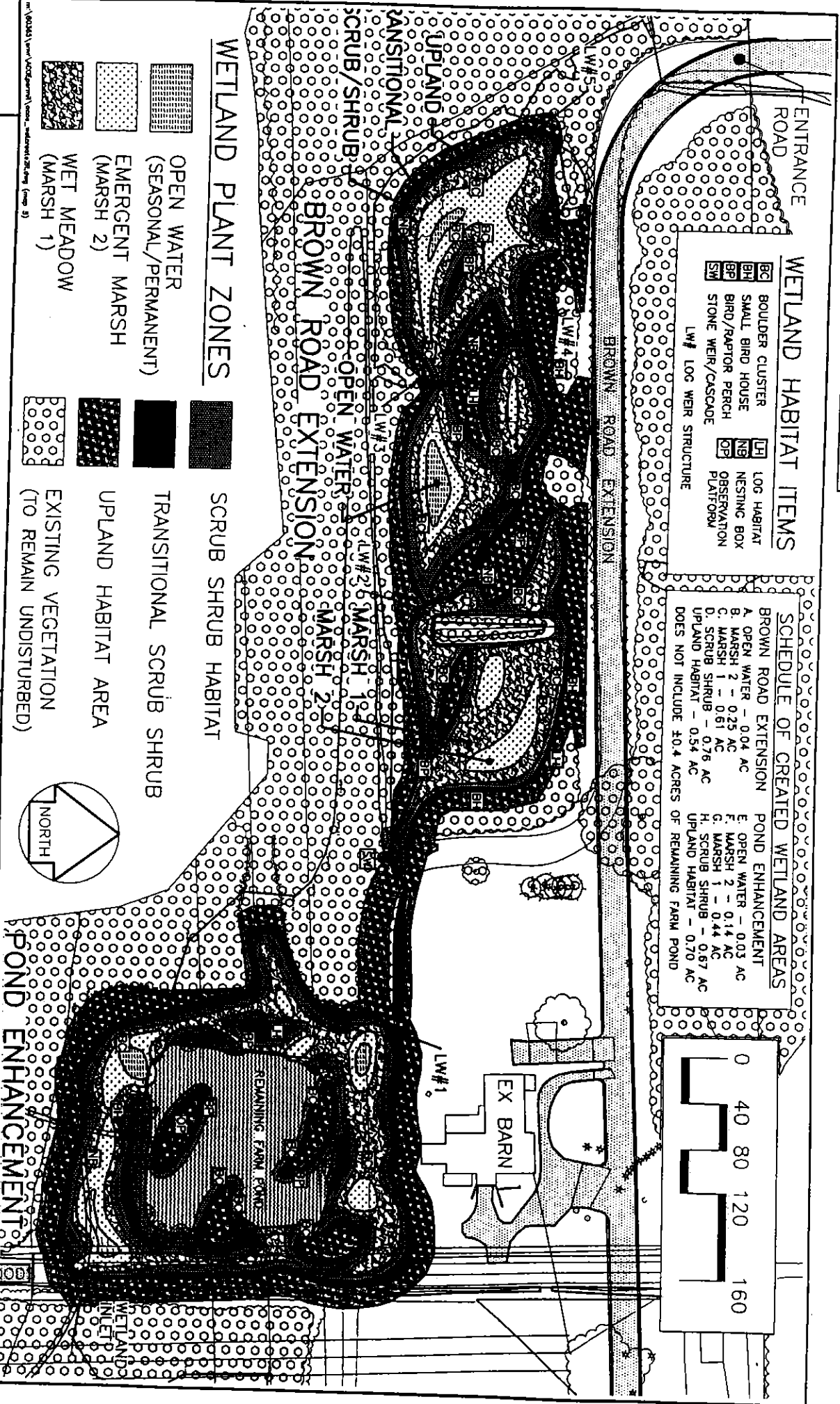
10 JAN 01
BLS/STP

SITE PLAN SOURCE: PLANS BY THE MILLER GROUP AND CHILD ASSOCIATES
BASE MAP SOURCE: SITE SURVEY BY T.J. MILLER PC

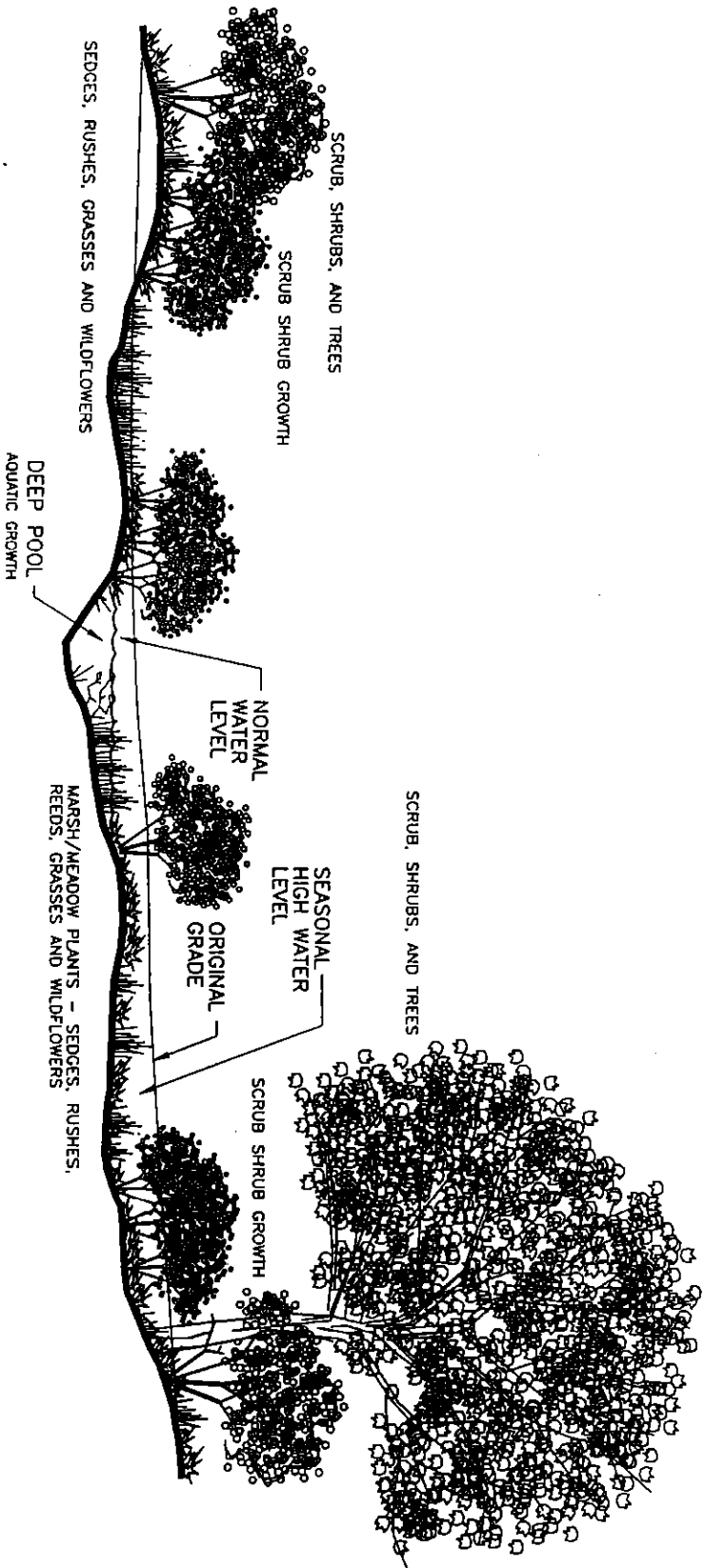


WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SAGBURNER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)
WETLAND MITIGATION PLAN

NOT FOR CONSTRUCTION



NOT FOR CONSTRUCTION



TYPICAL CREATED WETLAND SECTION

SHOWING VEGETATION ASSOCIATIONS AND GROWTH PATTERNS
DETAIL NOT TO SCALE

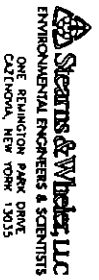
CORNELL UNIVERSITY
D/A Processing No. 2001-00543(0)
Tompkins County, New York Quad: ITHACA
EAST
Sheet 12 of 18



ARLINGTON, VIRGINIA



CATONIA
NEW YORK



ONE REMINGTON PARK DRIVE
CATONIA, NEW YORK 13025

10 JAN 01
801657A

WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SAPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)
WETLAND DETAILS

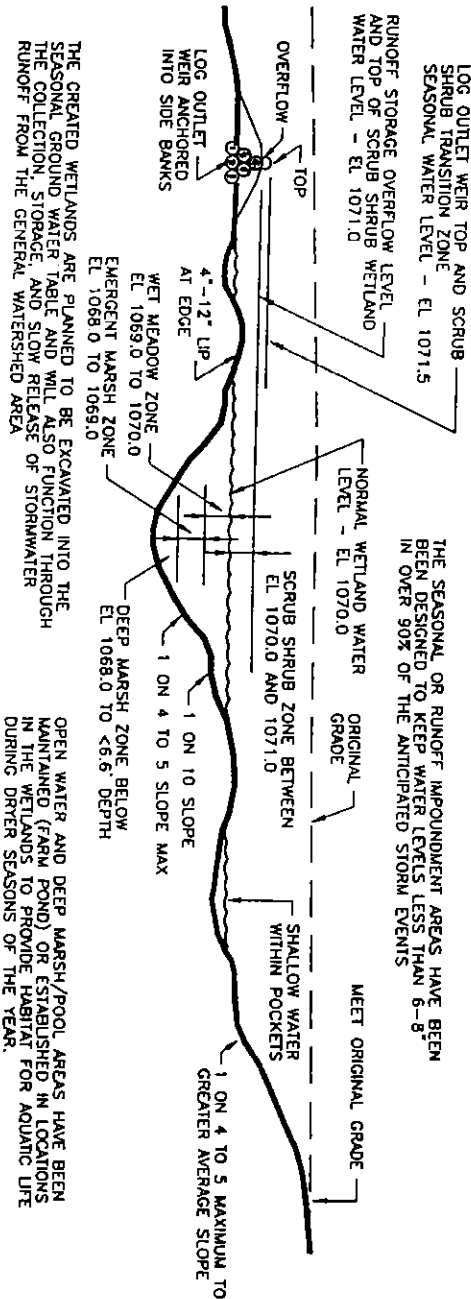
B

NOT FOR CONSTRUCTION

THE CREATED WETLANDS REQUIRE AN OUTLET STRUCTURE TO ENABLE THE ADDITIONAL STORAGE OF RUNOFF WATER FROM THE GENERAL WATERSHED AREA. LOG DIKES SHALL BE USED TO PROVIDE THE OUTLET CONTROL FOR THE RUNOFF STORAGE AND RELEASE.

THE WETLAND SURFACE ELEVATIONS NOTED IN THE SECTION AND ON PLANS ARE BASED UPON WATER LEVEL INDICATORS SET FOR LESS THAN ONE YEAR. THESE SHALL BE USED AS BASIS FOR START OF EXCAVATION WITH WETLAND SURFACE ELEVATIONS ADJUSTED TO COORDINATE WITH ACTUAL WATER TABLE ELEVATIONS ENCOUNTERED IN FIELD.

THE SEASONAL OR RUNOFF IMPONDEMENT AREAS HAVE BEEN DESIGNED TO KEEP WATER LEVELS LESS THAN 8-8" IN OVER 90% OF THE ANTICIPATED STORM EVENTS



THE CREATED WETLANDS ARE PLANNED TO BE EXCAVATED INTO THE SEASONAL GROUND WATER TABLE AND WILL ALSO FUNCTION THROUGH THE COLLECTION, STORAGE, AND SLOW RELEASE OF STORMWATER RUNOFF FROM THE GENERAL WATERSHED AREA

OPEN WATER AND DEEP MARSH/POOL AREAS HAVE BEEN MAINTAINED (POND) OR ESTABLISHED IN LOCATIONS IN THE WETLANDS TO PROVIDE HABITAT FOR AQUATIC LIFE DURING DRYER SEASONS OF THE YEAR.

TYPICAL CREATED WETLAND SECTION

SHOWING SURFACE FEATURES, WATER LEVELS, AND SLOPES
WETLAND ZONES AND SURFACE ELEVATIONS FOR BROWN ROAD EXTENSION EAST BASIN AREA DEPICTED IN SECTION
DETAIL NOT TO SCALE

CORNELL UNIVERSITY
D/A Processing No. 2001-00543(0)
Tompkins County, New York Quad: ITHACA
EAST
Sheet 13 of 18



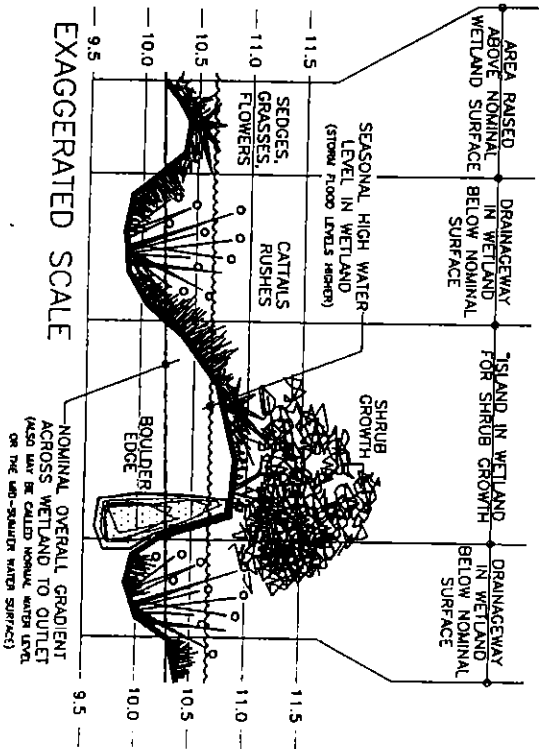
Sheets & White, LLC
ENVIRONMENTAL ENGINEERS & SCIENTISTS
ONE REMOND PARK DRIVE
EXTENSION, NEW YORK 13015

10 JAN 01
803537A

WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SIPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)
WETLAND DETAILS

F

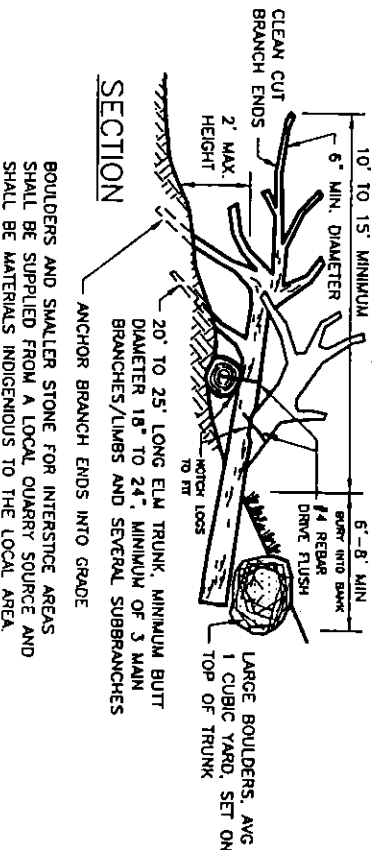
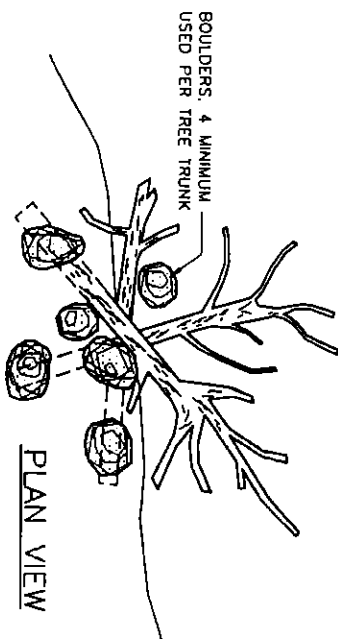
NOT FOR CONSTRUCTION



EXAGGERATED SCALE

WETLAND SECTION

DISPLAYS DESIRED HUMMOCK AND HOLLOW FEATURES FOR Viable WETLAND HABITAT
NOT TO SCALE



LOG HABITAT

NOT TO SCALE

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D/A Processing No. 2001-00543(0)
Tompkins County, New York Quad: ITHACA
EAST
Sheet 14 of 18

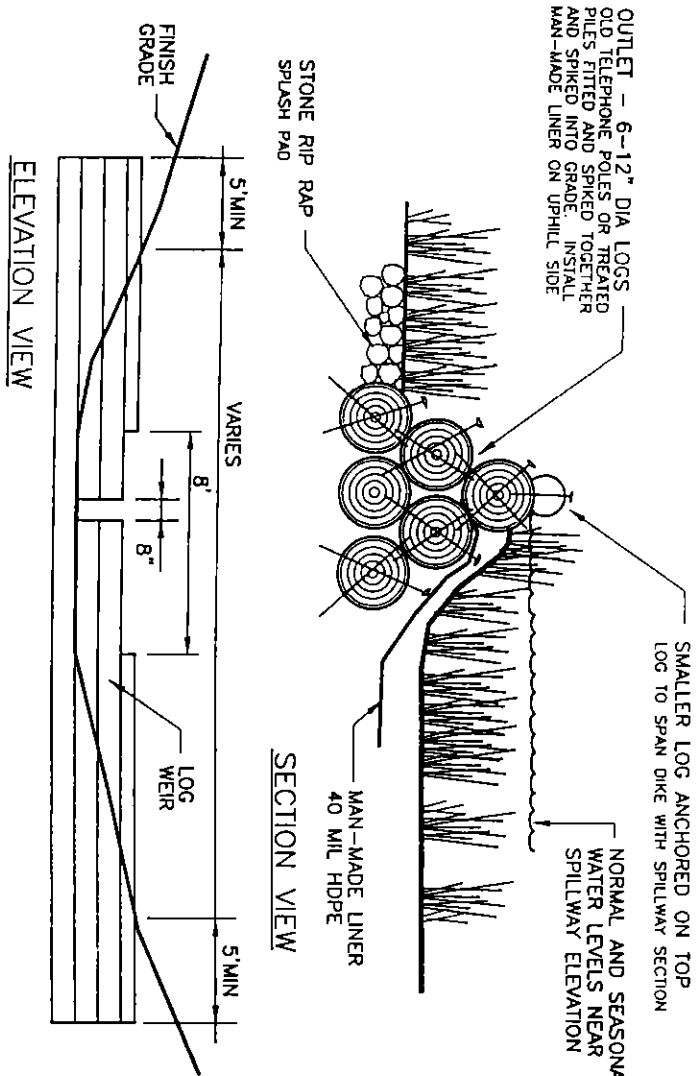


Sheets & White, LLC
ENVIRONMENTAL ENGINEERS & SCIENTISTS
ONE REMOND PARK DRIVE
COLUMBIA, NEW YORK 10523
10 JAN 01
803557A

WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
SAPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)
WETLAND DETAILS

E

NOT FOR CONSTRUCTION



WETLAND/POND LOG OUTLET WEIR

LOG DIKE BUILT ACROSS OUTLET POINT
DETAIL NOT TO SCALE

CORNELL UNIVERSITY
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ARLINGTON, VIRGINIA



CATZHOVA, NEW YORK



Searns & Wheeler, LLC
ENVIRONMENTAL ENGINEERS & SCIENTISTS
ONE REMONDON PARK DRIVE
CATZHOVA, NEW YORK 13035

10 JAN 01
80355FA

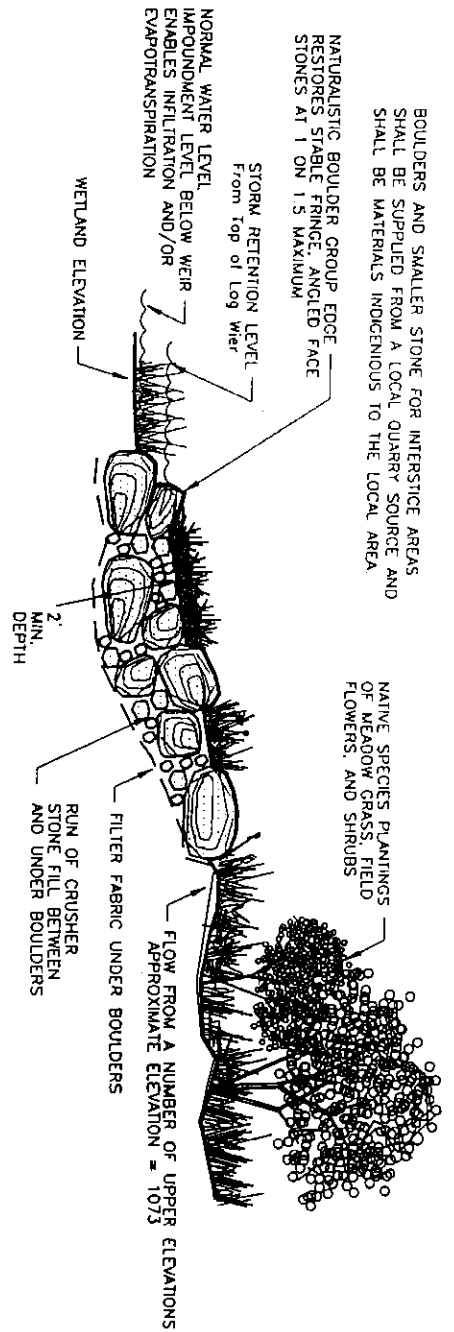
WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SIPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)
WETLAND DETAILS

C

NOT FOR CONSTRUCTION

BOULDERS AND SMALLER STONE FOR INTERSTICE AREAS SHALL BE SUPPLIED FROM A LOCAL QUARRY SOURCE AND SHALL BE MATERIALS INDIGENOUS TO THE LOCAL AREA.

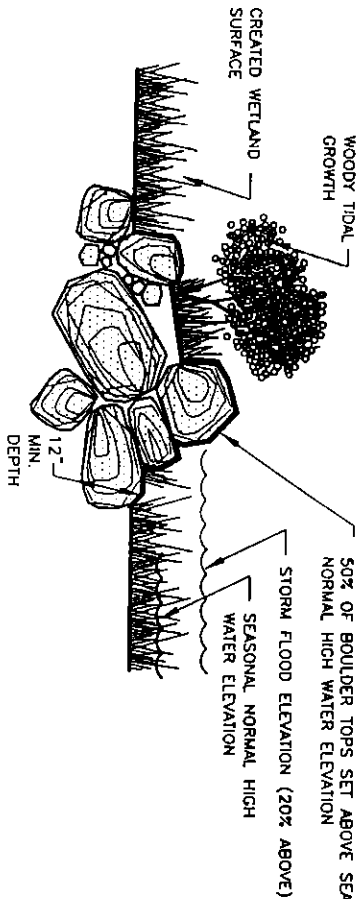
NATURALISTIC BOULDER GROUP EDGE RESTORES STABLE FRINGE, ANGLED FACE STONES AT 1 ON 1.5 MAXIMUM



STONE WEIR/CASCADE

NOT TO SCALE - BUT DRAWN PROPORTIONAL

BOULDERS AND SMALLER STONE FOR INTERSTICE AREAS SHALL BE SUPPLIED FROM A LOCAL QUARRY SOURCE AND SHALL BE MATERIALS INDIGENOUS TO THE LOCAL AREA



BOULDER CLUSTER/GROUP - WILDLIFE HABITAT

TYPICAL SECTION - SET BOULDERS WHERE SHOWN ON PLANS
NOT TO SCALE

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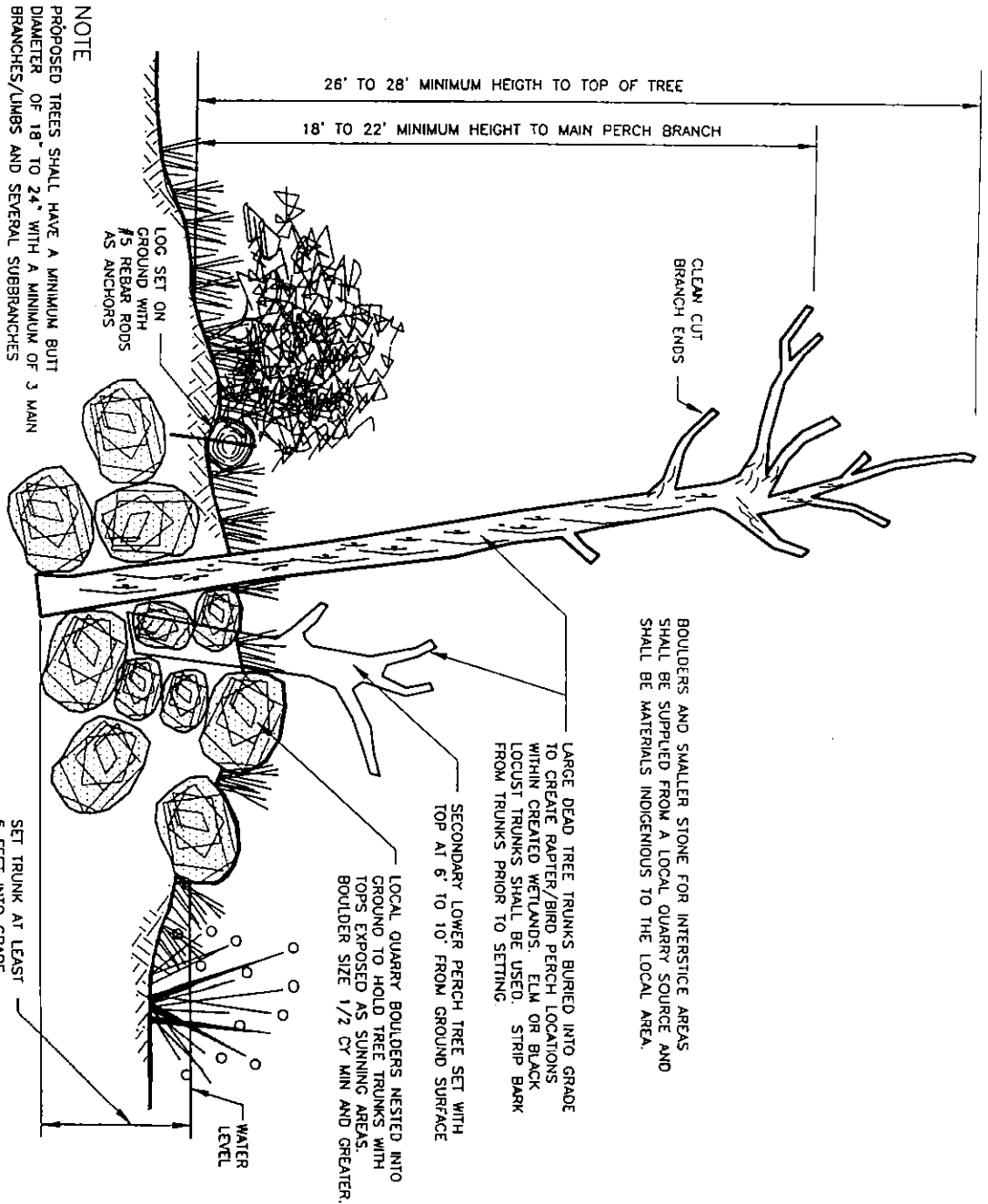


Stearns & Wheeler, LLC
ENVIRONMENTAL ENGINEERS & SCIENTISTS
ONE RIVINGTON PARK DRIVE
CALZADILLA, NEW YORK 13035
10 JAN 01
803657X

WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SAPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANSING, TOWN OF DRYDEN)
WETLAND DETAILS

D

NOT FOR CONSTRUCTION



HABITAT FEATURE - BIRD/RAPTOR PERCH

NOT TO SCALE

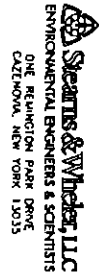
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ARLINGTON, VIRGINIA



CALZADILLA
NEW YORK



ONE REMINGTON PARK DRIVE
CALZADILLA, NEW YORK 13033

10 JUN 01
80355FA

WETLAND PERMIT APPLICATION
CORNELL LABORATORY OF ORNITHOLOGY
159 SAPSUCKER WOODS ROAD, ITHACA, NEW YORK
(VILLAGE OF LANISING, TOWN OF DRYDEN)
WETLAND DETAILS

A

Table 2. Proposed Species List for Created Mitigation Area

Plant Community	Total Area (sq.ft.)	Scientific Name	Common Name	Type of Stock
Zone 1	23,320.33			
Deep Marsh Habitat		<i>Scirpus americana</i>	Common three square	2" plug
		<i>Scirpus validus</i>	Soft stem bulrush	1 qt pot
		<i>Saururus cernuus</i>	Lizard's tail	2" plug
		<i>Cephalanthus occidentalis</i>	Buttonbush	12"/18" #1
Zone 2	17,080.93	<i>Carex stricta</i>	Tussock sedge	plugs
Palustrine Emergent Marsh		<i>Carex lurida</i>	Lurid sedge	plugs
		<i>Panicum vergatum</i>	Switchgrass	plugs
		<i>Cephalanthus occidentalis</i>	Buttonbush	12"/18" #1
		<i>Caltha palustris</i>	Marsh marigold	plugs
		<i>Iris versicolor</i>	Blue flag	plugs
		<i>Peltandra virginica</i>	Arrow arum	plugs
		<i>Polygonum hydropiperoides</i>	Swamp smartweed	plugs
		<i>Pontederia cordata</i>	Pickenweed	plugs
		<i>Sagittaria latifolia</i>	Common arrow-head	plugs
		<i>Sparganium eurycarpum</i>	Giant burreed	rhizomes
Zone 3	27,537.73	<i>Acorus calamus</i>	Sweet flag	rhizomes
Wet Meadow		<i>Carex lurida</i>	Shallow sedge	seed
		<i>Eupatoriadelphus maculatus</i>	Spotted joe-pye-weed	plugs
		<i>Eupatorium perfoliatum</i>	Boneset	plugs
		<i>Onoclea sensibilis</i>	Sensitive fern	rhizomes
		<i>Scirpus atrovirens</i>	Green bullrush	plugs
		<i>Verbena hastata</i>	Blue vervain	plugs
		Wetland Seed Mix/Wildflowers	Grasses/Forbs	seed
Zone 4	41,722.85	<i>Cornus stolonifera</i>	Red-osier dogwood	12"/18" #1
Scrub-shrub Wetland		<i>Cornus amomum</i>	Silky dogwood	12"/18" #1
		<i>Alnus rugosa</i>	Speckled alder	12"/18" #1
		<i>Sambucus canadensis</i>	Common elderberry	12"/18" #1
		<i>Spiraea latifolia</i>	Meadow sweet	12"/18" #1
		<i>Viburnum dentatum</i>	Arrow-wood	12"/18" #1
		<i>Quercus bicolor</i>	Swamp white oak	24"/30" #2
		<i>Acer rubrum</i>	Red maple	24"/30" #2
		Wetland Seed Mix/Wildflowers	Grasses/Forbs	seed
Zone 5	18,098.16	<i>Acer rubrum</i>	Red maple	24"/30" #2
Scrub-shrub Transitional		<i>Alnus rugosa</i>	Speckled alder	12"/18" #1
		<i>Cornus foemina</i>	Gray dogwood	12"/18" #1
		<i>Viburnum dentatum</i>	Arrow-wood	12"/18" #1
		<i>Viburnum lentago</i>	Nannyberry	12"/18" #1
		<i>Viburnum trilobum</i>	Highbush cranberry	12"/18" #1
		<i>Sambucus canadensis</i>	Elderberry	12"/18" #1
		Wetland Seed Mix/Wildflowers	Grasses/forbs	seed
Zone 6		<i>Acer saccharinum</i>	Silver maple	24"/30" #2
Upland Mounds	8,406.43	<i>Alnus rugosa</i>	Speckled alder	12"/18" #1
		<i>Thuja occidentalis</i>	Northern white cedar	24"/30" #2
Upland Slopes	45,435.68	<i>Aronia arbutifolia</i>	Red chokeberry	12"/18" #1
		<i>Amelanchier arborea</i>	Shadbush	12"/18" #1
		<i>Festuca arundinacea</i>	Tall fescue	seeds
		<i>Andropogon scoparius</i>	Little Bluestem	seeds
		<i>Panicum vergatum</i>	Switchgrass	seeds
		<i>Panicum clandestinum</i>	Deertongue	seeds
		<i>Agrostis alba</i>	Redtop	seeds
		<i>Rhus typhina</i>	Staghorn sumac	24"/30" #2
		<i>Populus tremula (tremuloides)</i>	Quaking aspen	24"/30" #2

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